

# MONTHLY WEATHER REVIEW,

## DECEMBER, 1875.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

### INTRODUCTION.

The present review of the atmospheric phenomena during December, 1875, is based upon, first, the tri-daily simultaneous observations charted at this office for the study and preparation of the weather predictions (the international simultaneous observations have not been used); second, the reports of monthly means and abstracts from 475 stations classified as Canadian, Naval Hospitals, Army Posts, Volunteer, Marine and United States Signal Service; third, such newspaper reports as seemed reliable.

The month of December has been, in general, marked by the following peculiarities:

First, the high barometric pressure, with infrequent and feeble storms in the United States.

Second, the high temperature, the average of the month being in the Ohio valley and Northwest, ten degrees above the normal. In the Southwest and Mississippi valley and westward to the Pacific, the month has been one of, if not the warmest on record.

Third, the large excess of rainfall in Oregon.

Fourth, almost total absence of auroras.

### BAROMETRIC PRESSURE.

*In general*—The general distribution of atmospheric pressure during the month is shown by the isobars of Chart No. II. With scarcely an exception the average pressure for this month is from 0.15 to 0.20 inch below that for December, 1874, and somewhat below the mean for the past five years. The areas of low and high pressure have been neither numerous or intense; the paths of the former have kept to the northward of their average route; the areas of high pressure have appeared to follow the Mississippi valley southward rather than southeastward until they reached the Gulf coast.

*Areas of Low Barometer*.—During the month eight important barometric minima have occurred at Portland, Or., six of which, those of the 1st, 3d, 18-19th, 24th, 27-28th and 31st, were of sufficient extent, or were central in such southern latitudes, as to produce sensible effects among our stations on the east side of the Rocky mountains. Several small and temporary minima seem to have originated during the month on the plains of the West and the Southwest. These were, however, the necessary results of the warm southerly winds blowing over these plains northward toward such regions of low barometer as passed from the Pacific coast into British America. Thus the storms west of the Mississippi have frequently been due to those occurring a few days earlier on the Pacific coast, and might, with some propriety, be traced backward to them; they have first appeared as long, narrow barometric depressions parallel to the mountain ranges; but, soon losing this feature, became more nearly circular as they passed eastward. Several minor depressions in the Northwest and the Southwest have been too local or evanescent, or too indefinite, to allow of a presentation of their tracks